MOTIVE POWER AND EQUIPMENT

Introduction

From August 1 through September 2, 1997, FRA and State Inspectors from Florida and North Carolina conducted a system-wide safety assessment of CSXT's motive power and equipment. They also worked with labor and management, to investigate and address concerns about CSXT's mechanical practices with respect to locomotive inspections and TOFC/COFC inspections. The focus of the assessment was:

- Compliance with 49 CFR Part 229 requirements regarding Locomotive Periodic Inspections; and

- Compliance with rules and standards regarding inspection, repair, loading, and securement of TOFC/COFC equipment.

Concerns, Discussion, and Recommendations

Concern: "92-I" Locomotive Periodic Inspection

CSXT's "92-I" FRA locomotive inspection does not meet the requirements for a periodic inspection as required by the Locomotive Inspection Act and 49 CFR Part 229--Locomotive Safety Standards.

Discussion:

In November 1996, CSXT devised a new scheduled maintenance program for specific locomotives in its fleet and began the movement of a projected 739 (26.9 percent) of the railroad's 2,746 locomotives into a 122-day maintenance cycle. The subject locomotives were manufactured by General Electric Corporation (GE) and had class designations as -8, -9, and AC models. Each model was equipped with computer monitoring of critical functions. The alternating current (AC) locomotives, the type currently produced by GE, offered the latest technological improvements in systems and components.

The change to a 122-day maintenance cycle required CSXT to implement an additional maintenance procedure to comply with the periodic inspection requirements of the Locomotive Safety Standards. Periodic inspection of locomotives is addressed in 49 CFR Section 229.23, which states that the interval between any two periodic inspections may not exceed 92 days. Seven locomotive service centers were authorized to perform this additional maintenance procedure, referred to as a "92-I" FRA locomotive inspection. When a locomotive assigned to the 122-day maintenance cycle was in one of these seven service centers and had met established time interval requirements from the previous
122-day maintenance cycle, the locomotive could have the "92-I" FRA inspection performed. The dates, with signatures, from both 122-day maintenance cycles and "92-I" inspections were entered on the Periodic Inspections section of the Locomotive Inspection And Repair Record (Form FRA F 6180-49A) on board each locomotive.

CSXT issued a "92-I" work packet that outlines the railroad's procedures for performing 92-day FRA periodic inspections on locomotives that are on a 122-day maintenance cycle. FRA has determined that the instructions contained in the "92-I" work packet are incomplete. CSXT's "92-I" fails to mention certain procedures that FRA requires to be performed during periodic inspections of locomotives that are on the 122-day maintenance cycle. As a result, locomotives in question are not receiving proper periodic inspections. Because of the incomplete "92-I" instructions, motor inspection covers are not being removed for proper motor inspections; emergency fuel shut-off switches and similar safety devices/alarms are not being inspected for proper operation; and locomotives are not uncoupled from consists for proper coupler and air brake inspections, all FRA requirements.

Recommendations:

- **!** CSXT should revise the "92-I" work packet to incorporate FRA's requirements for locomotive inspections.

- **!** CSXT must immediately begin performing all periodic inspections on locomotives in accordance with the requirements of 49 CFR Part 229 and the locomotive inspection laws.

Concern: Trailer/Container Tie-Down Application

FRA found numerous instances in which trailer and container tie-down equipment were not engaged properly.

Discussion:

FRA found significant instances where containers were not properly secured to the container cars. Among the conditions identified by FRA were corner locks that were not properly engaged, damaged container pedestals, and missing pedestal locks (pedestals serve to lock containers to the container cars).

Damaged, missing, or improperly engaged container securement devices can cause containers to shift en route, foul adjacent tracks, and strike passing trains, which could result in a serious accident.

Recommendation:

At FRA's insistence, CSXT has developed a thorough, comprehensive Action Plan to ensure the proper securement of container and trailer shipments. However, CSXT must ensure that the policies and procedures outlined in its Action Plan are implemented effectively and observed by railroad personnel. Therefore, CSXT should develop internal control procedures whereby railroad managers would conduct structured safety inspections of TOFC/COFC loading facilities to ensure the proper securement of containerized shipments.

Concern: Overloaded And Improperly Loaded Containers and Trailers-On-Flat Car

FRA found numerous instances in which containers/trailers on flat cars were overloaded or improperly loaded.

Discussion:

FRA found cases where overloaded trailers and containers were loaded onto railroad flat cars and shipped over the railroad. Overloaded trailers and containers have the potential

to become unstable and shift while en route.

Recommendation:

At FRA's insistence, CSXT has developed a thorough, comprehensive Action Plan to ensure the proper loading of container and trailer shipments. However, CSXT must ensure that the policies and procedures outlined in its Action Plan are implemented effectively and observed by railroad personnel. Therefore, CSXT should develop internal control procedures whereby railroad managers would conduct structured safety inspections of TOFC/COFC loading facilities to ensure that overloaded or improperly loaded trailers or containers are not permitted on CSXT trains.

Concern: Broken or Defective Tie-Down Equipment

FRA observed numerous instances in which trailers and containers with defective tie-down equipment were loaded onto flat cars.

Discussion:

FRA observed many instances in which trailers and containers were loaded onto flat cars for shipment, despite having defective tie-down or securement devices. Tie-down equipment that is not in good working order may allow trailers and containers to shift in transit or to fall off the flat car, creating the potential for a serious accident. Among the conditions noted by FRA were broken or defective trailer hitches and related

appurtenances; and, broken or defective container locks, container pedestals, and related assemblies.

It was apparent that many equipment defects resulted from insufficient or improper maintenance of the trailer hitches, container locks, and their related appurtenances.

Recommendations:

- CSXT should develop an Action Plan to ensure the safe loading of TOFC/COFC. Furthermore, the Action Plan should provide for the prompt identification and timely repair of defective securement systems.

- CSXT must ensure that the policies and procedures outlined in its Action Plan are implemented effectively and observed by railroad personnel. Therefore, CSXT should develop internal control procedures whereby railroad managers would conduct structured safety inspections of TOFC/COFC loading facilities to ensure the prompt identification and timely repair of defective securement systems.